

SOP 24 - Handling Liquid Nitrogen

- A. When transferring liquid nitrogen (N) from the large tank to a smaller container, be sure you are wearing a lab coat, safety goggles or face shield, and cryogenic gloves. No open shoes. No shorts. This material is so cold (-320 F) that it will cause frostbite very quickly. It also can replace the oxygen in a room, so danger of asphyxiation is present (suffocation).
- B. Place metal hose to the bottom of the container.
- C. Slowly turn valve until liquid starts going into container.
- D. When a few bubbles of liquid N can be seen at the top of container, turn valve off. Container must not have a tight cap.
- E. Place metal hose to back of tank so that no one bumps into it.
- F. When using liquid N to grind samples, be sure to have safety goggles on along with lab coat. Liquid N 'boils' readily as it warms up (above -320 F), which can cause ground up plant samples to explode out of containers. Always wear eye protection!
- G. If you spill a large quantity (> 1 liter), everyone should leave the room; then tell your supervisor.
- H. For more information, refer to the Material Safety Data Sheet, University of California College of Chemistry Health and Safety Manual Section 7, and the University of Maryland PowerPoint training slide series.